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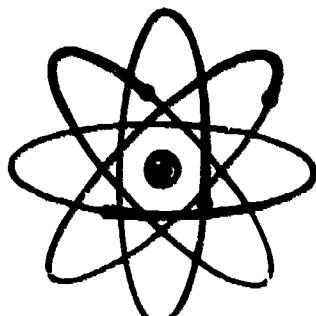
**ABSTRACT**

The demand for radiation protection personnel has increased during the past several years and can be expected to continue to increase for several years to come. This document gives the results of the latest survey of institutions offering degree programs in this field. Such a small segment of the total college enrollment is represented in health physics and related studies that other surveys cannot single them out. These students are vital, however, to the continued development and use of radioactive materials in industry, medicine, construction, research, power production, and even agriculture. This publication should be of value to those seeking graduates in various curriculums included, as well as to those who have an interest in pursuing careers in the field. The document covers: trends, placement, foreign nationals, women, and minorities. Appendices include statistical tables accompanying the text. (Author/PG)

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# RADIATION PROTECTION ENROLLMENTS AND DEGREES

## ENROLLMENTS-FALL 1973 DEGREES GRANTED JULY 1965- JUNE 1973



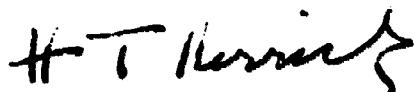
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Division of Labor Relations

JULY 1974

The demand for radiation protection personnel has increased during the past few years and can be expected to continue to increase for several years to come. Radiation Protection Enrollments and Degrees gives the results of the latest survey of institutions offering degree programs in this field. Such a small segment of the total college enrollment is represented in health physics and related studies that other surveys cannot single them out. These students are vital, however, to the continued development and use of radioactive materials in industry, medicine, construction, research, power production, and even agriculture. This publication should be of value to those seeking graduates in the various curriculums included as well as to those who have an interest in pursuing careers in the field.



H. T. Herrick,  
Division of Labor Relations

## RADIATION PROTECTION ENROLLMENTS AND DEGREES

1973

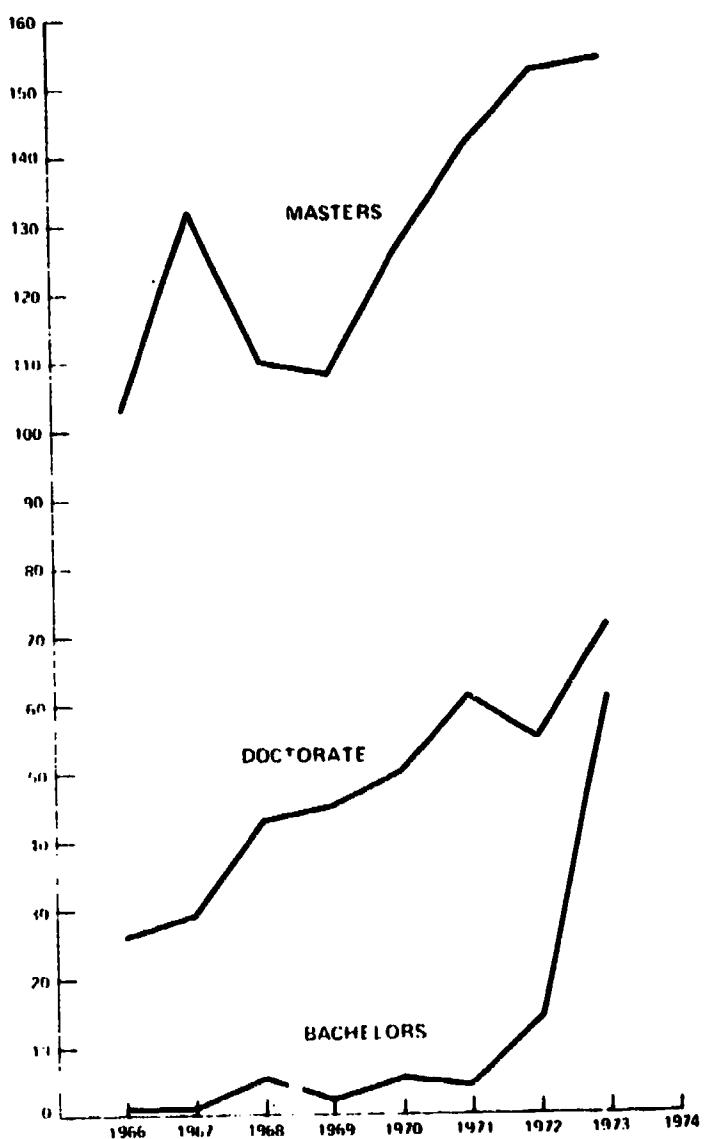
### INTRODUCTION

This is the third annual survey of the supply of radiation protection personnel, and the universe of the study has been expanded each year as additional programs are identified. Three institutions and a department were added to the universe of the present survey and to the historical data shown in Appendix I and in Figure 1. Other institutions have expanded their programs over the years to offer additional levels of degrees. All of these additions have served to improve the outlook for the supply of radiation protection personnel since the last more pessimistic report.<sup>1</sup> Demand estimates, however, are also higher because of the rapidly increasing uses of radioactive materials in medicine and industry and the acceleration planned in nuclear power development. The net result is a continuing demand for radiation protection personnel which is quickly absorbing the supply.

The numbers reported in this survey are somewhat skewed because of the inclusion of additional students and graduates of the biophysics programs at the University of California at Berkeley. Although students of the university planning careers in radiation protection had been included in the past, it was determined that many other students in the biophysics programs were completing the same core of radiation protection courses and could fill positions requiring them to "participate in conducting, coordinating, directing or planning a program for the evaluation or control of radiation hazards for an installation, community, or state agency . . ." (see Appendix 6). Irrespective of the career plans of many of these students, their capability to perform the radiation protection functions described above would still be valid, as shown by the findings of Dr. Dade W. Moeller in his analysis of the records of applications for certification by the American Board of Health Physics.<sup>2</sup> Graduates whose field of study had been radiation biology or biophysics were certified at a rate of 76.6 percent compared to 69.4 percent of those whose study field had been health physics and 71.4 percent of those whose study field had been

physics and mathematics. The extent to which these biophysics students are included in the numbers used in this report should be noted when evaluating the potential supply of radiation protection personnel. Adjustments in historical data as reported in Appendix I have not been made for prior years' graduates of this department.

FIGURE 1  
TRENDS IN RADIATION PROTECTION  
EDUCATION DEGREES GRANTED 1966-1973



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alone took 16 percent, with another 10 percent going to medical facilities (see Table 1 and Figure 2). Most active recruitment by industry and medicine was for master's graduates. Industry recruited 19 percent of all MS graduates and medical facilities took 12 percent. As in past years, the U.S. Government and its contractors recruited at the graduate level, taking 11 percent of master's and 22 percent of the PhD graduates.

The 29 percent of the 1972-73 MS graduates remaining for further study compares to 33 percent who remained in 1971-72. Thirty-one percent of the

BS graduates and a surprising 11 percent of PhD's also went on for further study compared to 54 percent and four percent, respectively, in 1971-72. Only 23 percent of PhD's went into academic employment compared to 36 percent last year.

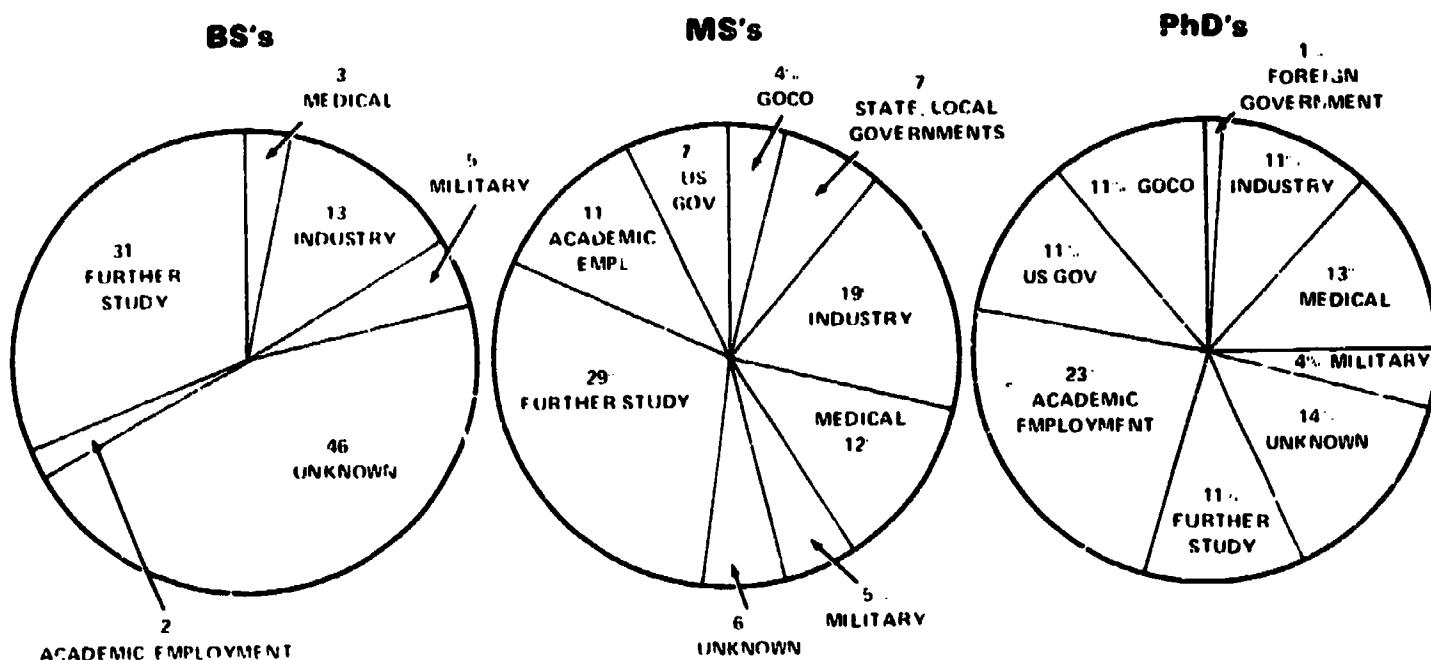
Employment by State and local governments dropped from 11 percent of MS's in 1971-72 to seven percent. These agencies appear to recruit almost exclusively at the MS-level (see Table 1). Figure 2 shows the relative placement of the graduates at all three degree levels.

TABLE 1  
POST-GRADUATION PLACEMENT OR PLANS OF RADIATION PROTECTION GRADUATES 1972-1973

Placement or Plans after Graduation	Total		GRADUATES JULY 1972 - JUNE 1973					
	Number	Percent	Bachelors	Percent	Masters	Percent	Doctors*	Percent
Further study	72	25	19	31	45	29	8	11
Academic employment	26	9	1	2	1	11	16	23
U. S. Government employment	19	7	-	-	11	7	8	11
GOCO (Government-owned, contractor operated)	14	5	-	-	6	4	8	11
State and local Government	12	4	-	-	1	7	1**	1
Medical facilities employment (Including teaching hospitals)	10	10	2	3	19	12	9	11
Industry employment	45	16	9	13	29	19	9	11
Military Service	13	5	2	5	7	5	3	4
Unknown	62	16	23	46	0	6	10	14

\* Total does not add to 100 because of rounding  
\*\* Foreign government

FIGURE 2  
RADIATION PROTECTION GRADUATE PLACEMENT 1973



## FOREIGN NATIONALS

Foreign nationals among radiation protection graduates represented only five percent of the total (see Table 2), the same percentage as in 1971-72. In that year, all graduates who were non-U.S. citizens received MS degrees. The 1972-73 non-citizen graduates received one BS, eight MS and four PhD

degrees. At least one of the PhD recipients went to work for a foreign government.

Non-citizens among graduate enrollees in the Fall of 1973 represented nine percent at both the MS and PhD levels. Six percent of seniors and three percent of juniors were foreign nationals.

Appendix 3 shows the number of foreign nationals by institution.

TABLE 2  
FOREIGN NATIONALS ENROLLMENTS  
AND DEGREES IN RADIATION PROTECTION

ENROLLMENT FALL 1973				DEGREES GRANTED JULY 1972 - JUNE 1973				
JUNIOR YEAR	SENIOR YEAR	MASTERS	DOCTORATE	BACHELOR	MASTERS	DOCTORATE	TOTAL	
#	#	#	#	#	#	#	#	
3 3	6 6	29 9	33 9	1 2	8 5	4 6	13 5	

## WOMEN AND MINORITIES

No accurate information has been available to indicate the degree of participation by women and minorities in the radiation protection field. A cursory examination of the roster of certified health physicists or the membership list of the Health Physics Society reveals very few female, oriental, or Spanish names. At any gathering of radiation protection personnel, one finds very few, if any, identifiable minority group representatives. Radiation protection is a field which should interest the scientifically talented student with humanitarian leanings, regardless of sex or ethnic origin.

To get more accurate information on the numbers of women and minorities training in the radiation protection field, the AFC modified the enrollment and degree data collection form (see Appendix 6) to obtain such information. It was gratifying to find that women are beginning to enter programs of radiation protection in increasing numbers, and the three receiving PhD's made up four percent of the total PhD's. Women also represented six percent of MS and eight percent of BS graduates (see Table 3 and Appendix 3). These figures are substantially higher than the estimated three percent or less who are presently in the field. Indicative of the increasing interest in the field by women is the present enrollment: 23 or seven percent of the PhD's; 24 or eight percent of the MS's; eight seniors, and 24 juniors are women.

Blacks are greatly underrepresented as evidenced by the few participating at all levels. Two blacks (three percent) received PhD's and only two, or less than one percent, are PhD candidates (see Appendix 3). Only one black received an MS, and four are presently enrolled in MS programs. However, three percent of seniors and 16 percent of juniors are blacks.

Spanish-speaking (or Spanish-surnamed) persons represent an even smaller proportion in the field. There was only one Spanish-speaking graduate a PhD. Spanish-speaking degree candidates include two working for PhD's, five working for MS's, and one undergraduate senior. Six Spanish-speaking juniors represent five percent of total juniors in radiation protection.

U.S. citizens of oriental extraction are generally represented in larger numbers than blacks. Two PhD, four master's and one bachelor's degrees were awarded to this ethnic group. Three full-time and one part-time PhD candidates, six full-time and one part-time Master's degree candidates, and four seniors are in this category.

The increased participation by female, black, and Spanish-speaking persons at the undergraduate junior level as shown in Table 3 is not indicative of a nationwide trend, however. Most credit must be given to a new BS-level program at Manhattan College.

which has aggressively sought minorities and women. Participants in this program have just reached the junior level and represent 50 percent of the women.

94 percent of the blacks, and 100 percent of the Spanish-speaking juniors reported in this study.

TABLE 3  
WOMEN AND MINORITIES ENROLLMENTS  
AND DEGREES IN RADIATION PROTECTION

	ENROLLMENT FALL 1973								DEGREES GRANTED JULY 1972 - JUNE 1973							
	JUNIOR YEAR		SENIOR YEAR		MASTER		DOCTORATE		BACHELOR		MASTER		DOCTORATE		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Women, U.S. Citizens	24	22	8	8	24	8	23	7	5	8	9	6	3	4	17	6
Blacks, U.S. Citizens	18	16	3	3	4	1	2	1	0	-	1	1	2	3	3	1
Spanish Speaking, U.S. Citizens	6	5	1	1	5	2	2	1	0	-	0	-	1	1	1	-
Oriental, U.S. Citizens	0	-	4	4	7	2	4	1	1	2	4	3	2	3	7	2

1. USAEC, *Radiation Protection Enrollment and Degree Survey*, WASH-1229 (73), which is the source of all references to 1971-72 information throughout this study.
2. Moeller, Dade W., *Analysis of the Records of American Board of Health Physics Applicants*.

HSPII/EHS 70-3. Harvard University, Boston, July 1970.

3. U.S. Atomic Energy Commission, Regulatory Guide 8.8, "Information Relevant to Maintaining Occupational Radiation Exposure as Low as Practicable (Nuclear Reactors)," July 1973.

## Appendix 1

**RADIATION PROTECTION  
DEGREES GRANTED 1966-1973**

**Scholarship  
Professor  
Defectorate**

STATE INSTITUTION	JULY - JUNE	1966			1967			1968			1969			1970			1971			1972			1973							
		B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D					
<b>NEW PROGRAM</b>																														
<u>Alabama</u>																														
Univ. of Alabama, Birmingham																														
<u>California</u>																														
Univ. of California, Berkeley	-	3	2	-	-	3	1	-	5	1	-	1	3	-	3	1	-	1	1	-	6	3	-	5	-	25	6	9		
Univ. of California, LA	..	3	-	-	-	3	2	-	1	3	-	2	3	-	2	3	-	2	1	-	6	2	-	6	-	8	2			
<u>Colorado</u>																														
Colorado State University	..	2	1	-	-	9	-	-	2	3	-	10	6	-	8	4	-	5	3	-	6	6	-	6	-	7	10			
<u>Connecticut</u>																														
Yale University	..	..	..	..	..	..	..	..	5	-	-	4	-	-	3	-	-	4	-	1	-	1	-	1	-	1	-			
<u>Florida</u>									6	-	-	6	1	-	2	1	-	5	1	-	2	1	-	12	3	-	10	2		
Univ. of Florida	..	4	-	-	-	6	-	-	6	-	-	7	-	-	4	-	-	5	-	-	3	-	-	1	-	7	-			
Univ. of Miami, Sch. of Medicine	..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<u>Georgia</u>									2	-	-	10	-	-	2	-	-	6	-	-	2	1	-	1	12	1	-	5	10	3
Emory Univ. Sch. of Medicine 1/	-	2	-	-	-	4	-	-	4	-	-	3	-	-	3	-	-	4	1	-	4	1	-	5	-	3	-	3		
Georgia Inst. of Technology 2/	-	5	-	-	-	4	-	-	4	-	-	3	-	-	3	-	-	6	1	-	2	1	-	2	-	1	-	3		
<u>Illinois</u>									1	-	-	1	1	-	1	-	-	1	1	-	3	1	-	3	1	-	1	-	4	
Univ. of Illinois, Urbana	..	1	-	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	1	-	2	2	-	-	-	-	-	1		
Northwestern University	..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<u>Indiana</u>									6	5	-	3	4	-	5	11	-	6	10	-	5	6	-	2	4	9	6	11	12	
Purdue University	..	-	1	5	-	-	-	-	6	-	-	1	1	-	1	1	-	1	1	-	2	2	-	-	-	-	-	1		
<u>Iowa</u>									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Univ. of Iowa	..	1	2	-	-	1	2	-	1	2	-	1	2	-	1	2	-	1	2	-	1	2	-	1	2	-	1	-		
<u>Kansas</u>									1	2	-	1	5	3	1	2	3	1	2	3	1	4	8	-	2	3	5	2	3	
Univ. of Kansas	..	..	..	..	..	..	..	..	1	4	1	1	5	3	1	2	3	1	2	3	1	4	5	-	1	4	5	2	3	
<u>Kentucky</u>									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
U. of Kentucky, Medical Center	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
<b>(Graduate Progress started January 1968)</b>																														

RADIATION PROTECTION - DEGREES GRANTED - 1966-1971 - By Institution

STATE	INSTITUTION	JULY -			1966			1967			1968			1969			1970			1971			1972					
		B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D			
<u>Maryland</u>	<u>Johns Hopkins University</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<u>Massachusetts</u>	<u>Harvard University</u>	1	-	-	1	-	-	6	-	-	2	1	-	5	1	-	4	1	-	6	2	-	9	1	-	2	1	
	<u>Lowell Tech. Institute</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>Michigan</u>	<u>Univ. of Michigan</u>	8	3	-	17	2	-	2	1	-	10	1	-	5	1	-	5	3	-	8	3	-	5	3	-	5	3	
<u>Minnesota</u>	<u>Univ. of Minnesota</u>	5	-	-	2	-	-	1	-	-	4	-	-	3	-	-	4	-	-	3	-	-	6	-	-	8	-	
<u>New Jersey</u>	<u>Rutgers, The State Univ.</u>	11	-	-	7	-	-	12	-	-	6	-	-	10	3	-	8	4	-	4	2	-	9	2	-	9	2	
<u>New York</u>	<u>Robertson College</u>	4	1	-	2	6	-	2	4	-	5	-	-	4	3	-	4	3	-	1	6	-	1	6	-	1	7	3
	<u>New York Univ. Medical Center</u>	-	2	-	1	4	-	1	-	-	2	3	-	1	-	1	1	-	1	1	-	1	-	1	-	2	-	1
	<u>Rensselaer Polytechnic Inst.</u>	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<u>Sloan-Kettering Div.-Cornell U.</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<u>U. of Rochester, Sch. of Medicine and Dentistry</u>	-	1	1	-	4	1	-	4	-	-	2	-	6	-	1	10	-	4	4	-	4	-	4	-	4	3	
<u>North Carolina</u>	<u>North Carolina State Univ.</u>	-	5	-	-	5	1	-	1	-	-	1	-	1	-	1	-	1	-	1	-	-	1	-	-	1	4	
	<u>Univ. of North Carolina</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
<u>Oklahoma</u>	<u>Univ. of Cincinnati, Cincinnati General Hospital</u>	-	2	1	-	3	-	-	2	-	-	4	-	-	6	-	10	-	-	9	-	-	9	-	-	9	-	
	<u>Univ. of Oklahoma</u>	-	10	2	-	8	-	-	10	3	-	2	2	-	6	-	12	2	-	9	-	-	2	1	-	2	1	

**RADIATION PROGRAM - DEGREES GRANTED - 1966-1973 - BY INSTITUTION**

STATE INSTITUTION	JULY 1965 1966	JULY 1966 1967	1966			1967			1968			1969			1970			1971			1972				
			B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D		
<b>Pennsylvania</b>																									
Duquesne University	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Temple University	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
U. of Pennsylvania Hospital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Univ. of Pittsburgh	-	6	1	-	4	1	-	8	-	-	-	3	1	-	6	1	-	5	-	-	5	2	-	12	-
Puerto Rico	-	-	-	-	-	-	-	-	-	-	-	5	-	-	5	-	-	5	-	-	10	-	-	4	-
Univ. of Puerto Rico	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tennessee	-	1	-	-	2	-	-	4	2	7	-	2	3	1	1	3	1	3	3	1	4	2	1	3	10
Univ. of Tennessee	-	10	-	-	4	-	-	4	2	3	1	2	7	1	3	3	1	3	5	1	2	-	-	5	5
Vanderbilt University	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Texas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Texas A&M University	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Univ. of Texas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Washington	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>TOTAL.</b>	1,103	26	1,132	29	5,110	43	2,108	45	3,326	50	4,141	61	14,132	55	41,154	72	-	-	-	-	-	-	-	-	

1/ Added to universe this year

2/ Dept. of Physics graduates added; Dept. of Engineering graduates previously reported.

3/ Four graduates with Master's and Ph.D.'s were counted by the University only at Master's level to avoid inflation of totals, 1966-1967.

## APPENDIX 2

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION  
RADIATION PROTECTION

STATE - INSTITUTION AND SUBFIELD		ENROLLMENT FALL 1973												DEGREES GRANTED JULY 1972 - JUNE 1973	
SCHOOL	STATE	FT	PT	JUNIOR	SENIOR	MASTER	DOCTORATE	FT	PT	JULY	MASTER	PHD			
ALABAMA	UNIVERSITY OF ALABAMA IN BIRMINGHAM	0	0	0	0	0	0	0	0	0	0	0			
	RADIOBIOLOGY OR BIOPHYSICS	1	0	0	0	0	0	0	0	0	0	0			
	HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	1	0	0	0	0	0	0	0	0	0	0			
SCHOOL	TOTAL	1	0	1	0	0	0	0	0	0	0	0			
STATE	TOTAL	1	0	1	0	0	0	0	0	0	0	0			
CALIFORNIA	UNIVERSITY OF CALIFORNIA, BERKELEY	0	0	0	0	2	0	1	0	0	0	0			
	ENGINEERING OR BASIC SCIENCES, HEALTH PHYSICS OPTION	0	0	0	0	0	0	0	0	0	0	0			
	MEDICAL RADIATION PHYSICS OR RADIOLOGICAL PHYSICS	0	0	0	0	0	0	0	0	0	0	0			
	RADIOBIOLOGY OR BIOPHYSICS	10	0	25	0	2	0	0	0	0	0	0			
	HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	10	0	0	0	13	0	0	0	0	0	0			
SCHOOL	TOTAL	10	0	25	0	17	0	25	0	0	0	0			
UNIVERSITY OF CALIFORNIA, LOS ANGELES	MEDICAL RADIATION PHYSICS OR RADIOLOGICAL PHYSICS	0	0	0	0	17	1	20	1	0	0	0			
SCHOOL	TOTAL	0	0	0	0	17	1	20	1	0	0	0			
STATE	TOTAL	0	0	0	0	17	1	20	1	0	0	0			
COLORADO	COLORADO STATE UNIVERSITY	0	0	0	0	11	1	1	1	0	0	0			
	VETERINARY RADIOLOGY	0	0	0	0	11	1	20	1	0	0	0			
	ENGINEERING OR BASIC SCIENCES, HEALTH PHYSICS OPTION	0	0	0	0	0	0	0	0	0	0	0			
	RADIOBIOLOGY OR BIOPHYSICS	0	0	0	0	0	0	0	0	0	0	0			
	HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	0	0	0	0	0			
SCHOOL	TOTAL	0	0	0	0	11	1	20	1	0	0	0			
STATE	TOTAL	0	0	0	0	11	1	20	1	0	0	0			
FLORIDA	UNIVERSITY OF FLORIDA	0	0	0	0	0	0	0	0	0	0	0			
	ENGINEERING OR BASIC SCIENCES, HEALTH PHYSICS OPTION	0	0	0	0	0	0	0	0	0	0	0			
	MEDICAL RADIATION PHYSICS OR RADIOLOGICAL PHYSICS	0	0	0	0	0	0	0	0	0	0	0			
	HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	0	0	0	0	0			
SCHOOL	TOTAL	0	0	0	0	0	0	0	0	0	0	0			
STATE	TOTAL	0	0	0	0	0	0	0	0	0	0	0			
UNIVERSITY OF MIAMI	HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	0	0	0	0	0			
SCHOOL	TOTAL	0	0	0	0	0	0	0	0	0	0	0			
STATE	TOTAL	0	0	0	0	0	0	0	0	0	0	0			

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FT Full Time  
PT Part Time

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION  
RADIATION PROTECTION

STATE - INSTITUTION AND SUBFIELD		ENROLLMENT FALL 1973						DEGREES GRANTED JULY 1972 - JUNE 1973					
		JUNIOR		SENIOR		MASTER		DOCTORATE		BACH		MASTER	
SCHOOL	TOTAL	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
GEORGIA TECHNICAL UNIVERSITY RADICALICAL SCIENCES HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	1	0	0	0	0	0	0	3	0	3	0
SCHOOL TOTAL	9	0	9	0	22	2	11	0	0	5	13	0	3
STATE TOTAL	9	0	9	0	22	2	11	0	0	5	13	0	3
ILLINOIS IIT ILLINOIS UNIVERSITY ENGINEERING OR BASIC SCIENCES, HEALTH PHYSICS OPTION RADICALICAL PHYSICS HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	2	0	2	0	2	0	2	0	3	2	1	2
SCHOOL TOTAL	0	0	2	0	2	0	2	0	0	3	2	1	2
STATE TOTAL	0	0	2	0	2	0	2	0	0	3	2	1	2
INDIANA PURDUE UNIVERSITY ENVIRONMENTAL HEALTH MEDICAL RADIATION PHYSICS OR CAUTICAL PHYSICS RADICALICAL PHYSICS HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	0	0	0	12	0	5	0
SCHOOL TOTAL	15	0	3	0	0	0	0	0	0	12	0	5	0
STATE TOTAL	17	0	3	0	0	0	0	0	0	31	0	6	0
LOUISIANA UNIVERSITY OF LOUISIANA RADICALICAL PHYSICS	0	0	0	0	0	0	0	0	0	7	0	0	0
SCHOOL TOTAL	0	0	0	0	0	0	0	0	0	7	0	0	0
STATE TOTAL	0	0	0	0	0	0	0	0	0	7	0	0	0

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ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION  
RADIATION PROTECTION

STATE - INSTITUTION AND SURFIELD		ENROLLMENT FALL 1973												DEGREES GRANTED	
		JUNIOR		SENIOR		MASTER		DOCTORATE		JULY 1972 - JUNE 1973					
SCHOOL	TOTAL	FT	PT	FT	PT	FT	PT	FT	PT	MASTER	PHD				
KANSAS	UNIVERSITY OF KANSAS RADIATION BIOPHYSICS MEDICAL RADIATION PHYSICS OR RADIOPHYSICAL PHYSICS RADICHLLOGY OR BIOPHYSICS OR RADIOPHYSICS HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	2	1	2	1	3	3	4	1	1	1	2			
STAFF	TOTAL	2	0	1	0	5	7	5	6	2	1	1			
KENTUCKY	UNIVERSITY OF KENTUCKY MEDICAL RADIATION PHYSICS OR RADIOPHYSICAL PHYSICS HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	2	0	1	0	5	7	5	6	2	1	1			
STAFF	TOTAL	2	0	1	0	5	7	5	6	2	1	1			
MARYLAND	JEFFERSON UNIVERSITY MEDICAL RADIATION PHYSICS OR RADIOPHYSICAL PHYSICS RADIOPHYSICS JR BIOPHYSICS	0	0	0	0	10	0	0	0	0	0	0			
STAFF	TOTAL	0	0	0	0	10	0	0	0	0	0	0			
MASSACHUSETTS	Harvard University MEDICAL RADIATION PHYSICS OR RADIOPHYSICAL PHYSICS RADIOPHYSICS JR BIOPHYSICS	0	0	0	0	1	1	1	1	1	1	1			
STAFF	TOTAL	0	0	0	0	1	1	1	1	1	1	1			
MASSACHUSETTS	Harvard University MEDICAL RADIATION PHYSICS OR RADIOPHYSICAL PHYSICS RADIOPHYSICS OR BIOPHYSICS HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	1	1	1	1	1	1	1			
STAFF	TOTAL	0	0	0	0	1	1	1	1	1	1	1			
MASSACHUSETTS	Harvard University MEDICAL RADIATION PHYSICS OR RADIOPHYSICAL PHYSICS RADIOPHYSICS OR BIOPHYSICS HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	1	1	1	1	1	1	1			
STAFF	TOTAL	0	0	0	0	1	1	1	1	1	1	1			
LOEWELL TECHNICAL INSTITUTE	MASSACHUSETTS INSTITUTE MEDICAL RADIATION PHYSICS OR RADIOPHYSICAL PHYSICS RADIOPHYSICS OR BIOPHYSICS HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	12	2	26	5	5	0	0	0	0	0	0			
STAFF	TOTAL	12	2	26	5	5	0	0	0	0	0	0			
MICHIGAN	UNIVERSITY OF MICHIGAN MEDICAL PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	15	2	3	3	1	1	1			
STAFF	TOTAL	0	0	0	0	15	2	3	3	1	1	1			

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ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION  
RADIATION PROTECTION

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT FALL 1973										DEGREES GRANTED			
	SCHOOL		STATE		SCHOOL		STATE		SCHOOL		STATE		STATE	
	FT	PT		FT	PT		FT	PT		FT	PT		FT	PT
MINNESOTA														
UNIVERSITY OF MINNESOTA														
HEALTH PHYSICS, RADIATION, HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	1	0	2	0	0	0	0	0
SCHOOL TOTAL	0	0	0	0	0	0	1	0	2	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	1	0	2	0	0	0	0	0
NEW JERSEY														
RUTGERS UNIVERSITY														
AEROSOL PHYSICS														
ENVIRONMENTAL RADIODACTIVITY														
RADIATION CHEMISTRY														
RADIobiLOGY OR BIOPHYSICS														
HEALTH PHYSICS, RADIATION, HEALTH OR RADIATION PROTECTION														
SCHOOL TOTAL	0	0	0	0	0	0	1	0	2	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	1	0	2	0	0	0	0	0
13	NEW YORK													
MANHATTAN COLLEGE														
RADIATION ADMINISTRATION														
NUCLEAR MEDICINE BASIC SCIENCES														
MEDICAL PHYSICS OR RADIODIAGNOSTIC PHYSICS														
RADIATION PHYSICS OR RADIODIAGNOSTIC PHYSICS														
HEALTH PHYSICS, RADIATION, HEALTH OR RADIATION PROTECTION														
SCHOOL TOTAL	11	4	3	6	2	1	1	0	0	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0
13	NO. Y.U. MEDICAL CENTER													
FACULTY PHYSICS, RADIATION, HEALTH OR RADIATION PROTECTION														
SCHOOL TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0
13	PESSLSLATE POLYTECHNIC INSTITUTE													
HEALTH PHYSICS, RADIATION, HEALTH OR RADIATION PROTECTION														
SCHOOL TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0
13	SLCAKE-KETTERING DIV - CORNELL UNIVERSITY													
MEDICAL RADIATION PHYSICS OR RADIODIAGNOSTIC PHYSICS														
RADIobiLOGY OR BIOPHYSICS														
SCHOOL TOTAL	0	0	0	0	0	0	2	0	2	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0
13	UNIVERSITY OF ROCHESTER													
RADIODIAGNOSTIC PHYSICS														
SCHOOL TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	1	0	1	0	0	0	0	0

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ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION  
RADIATION PROTECTION

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STATE - INSTITUTION AND SUBFIELD	ENROLLMENT FALL 1972						DEGREES GRANTED	
	JUNIOR FT	JUNIOR PT	SENIOR FT	SENIOR PT	MASTER FT	MASTER PT	DOCTORATE FT	DOCTORATE PT
NORTH CAROLINA NORTH CAROLINA STATE UNIVERSITY AT RALEIGH HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	0	0
SCHOOL TOTAL	0	0	0	0	0	0	0	0
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	1	0	0	0	3	4
SCHOOL TOTAL	0	0	0	0	0	0	3	4
STATE TOTAL	0	0	0	0	0	0	3	4
OHIO UNIVERSITY OF CINCINNATI RADIOPHYSICS, ADMINISTRATION MEDICAL RADIATION PHYSICS OR RADIOLOGICAL PHYSICS	0	0	0	0	0	0	9	9
SCHOOL TOTAL	0	0	0	0	0	0	9	9
STATE TOTAL	0	0	0	0	0	0	9	9
OKLAHOMA UNIVERSITY OF OKLAHOMA HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	1	1
SCHOOL TOTAL	0	0	0	0	0	0	1	1
STATE TOTAL	0	0	0	0	0	0	1	1
PENNSYLVANIA DUQUESNE UNIVERSITY HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	0	0
SCHOOL TOTAL	0	0	0	0	0	0	0	0
STATE TOTAL	0	0	0	0	0	0	0	0
TEMPLE UNIVERSITY RADIOPHARMACY HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	1	0	1	0	0	0	4	4
SCHOOL TOTAL	1	0	1	0	0	0	4	4
STATE TOTAL	1	0	1	0	0	0	4	4
UNIVERSITY OF PENNSYLVANIA MEDICAL RADIATION PHYSICS OR RADIOLOGICAL PHYSICS	7	0	5	0	4	0	8	2
SCHOOL TOTAL	7	0	5	0	4	0	8	2
UNIVERSITY OF PITTSBURGH HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	0	0	0	0	0	0	0	0
SCHOOL TOTAL	0	0	0	0	0	0	0	0
	13	7	13	7	0	0	12	4
	0	0	0	0	0	0	12	0

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION  
RADIATION PROTECTION

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		ENROLLMENT FALL 1973						DEGREES GRANTED						
		JUNIOR			SENIOR			MASTER			DOCTORATE			JULY 1972 - JUNE 1973
SCHOOL	TOTAL	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	BACH	MASTER	PHD
STATE	TOTAL	8	0	6	0	17	7	4	6	6	14	1	0	0
PUBLIC FIGURE														
UNIVERSITY OF PUBLIC FIGURE, RIC PITTSBURGH														
HEALTH PHYSICS, AVIATION, HEALTH OR RADIATION PROTECTION		0	0	3	0	4	2	0	0	0	0	4	0	0
SCHOOL	TOTAL	0	0	0	0	4	2	0	0	0	0	4	0	0
STATE	TOTAL	0	0	0	0	4	2	0	0	0	0	4	0	0
TENNESSEE														
UNIVERSITY OF TENNESSEE, KNOXVILLE														
HEALTH PHYSICS, AVIATION, HEALTH OR RADIATION PROTECTION		0	0	6	0	6	6	0	0	0	0	2	0	0
SCHOOL	TOTAL	0	0	6	0	6	6	0	0	0	0	2	0	0
STATE	TOTAL	0	0	6	0	6	6	0	0	0	0	2	0	0
VANDEBILT UNIVERSITY														
NUCLEAR PHYSICS														
ENGINEERING OR BASIC SCIENCES, HEALTH PHYSICS OPTION														
MEDICAL RADIATION PHYSICS OR AERONAUTICAL PHYSICS														
HEALTH PHYSICS, AVIATION, HEALTH OR RADIATION PROTECTION		1	1	1	1	1	1	2	2	2	2	4	0	0
SCHOOL	TOTAL	0	0	0	0	3	0	8	0	0	0	1	0	0
STATE	TOTAL	0	0	0	0	11	0	14	0	0	0	3	0	0
TEXAS														
TEXAS A & M UNIVERSITY														
RADIOPHYSICS OR BIOPHYSICS														
HEALTH PHYSICS, AVIATION, HEALTH OR AVIATION PROTECTION		10	10	6	2	1	1	5	5	5	5	0	0	0
SCHOOL	TOTAL	10	0	10	0	6	2	1	1	1	1	0	0	0
STATE	TOTAL	10	0	12	0	6	2	1	1	1	1	0	0	0
WASHINGTON														
UNIVERSITY OF WASHINGTON														
MEDICAL RADIATION PHYSICS OR AERONAUTICAL PHYSICS														
RADIOPHYSICS OR BIOPHYSICS														
HEALTH PHYSICS, AVIATION, HEALTH OR RADIATION PROTECTION		2	2	7	2	1	1	1	1	1	1	1	1	1
SCHOOL	TOTAL	0	0	0	0	9	2	0	0	0	0	1	1	1
STATE	TOTAL	0	0	0	0	9	2	0	0	0	0	1	1	1
GRAND	TOTAL	69	41	83	12	244	63	303	61	71	66	156	61	71

## APPENDIX 3

MINORITIES, WOMEN  
AND  
NATIONALS  
ENROLLMENTS AND DEGREES BY SCHOOLS  
RADIATION PROTECTION

STATE - INSTITUTION	ENROLLMENT FALL 1973								DEGREES GRANTED								
	JUNIOR				SENIOR				MASTER		DOCTORATE		JULY 1972 - JUNE 1973		MASTER		PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT
CALIFORNIA																	
UNIVERSITY OF CALIFORNIA, BERKELEY																	
CITIZENAL, U.S. CITIZENS	2	2															
FOREIGN NATIONALS - ALL CURRICULA	1	1															
UNIVERSITY OF CALIFORNIA, LOS ANGELES																	
CITIZENAL, U.S. CITIZENS	1	1															
BLACKS, U.S. CITIZENS																	
WOMEN, U.S. CITIZENS																	
FOREIGN NATIONALS - ALL CURRICULA																	
COLLEGE STATE UNIVERSITY SPRINGFIELD, U.S. CITIZENS																	
WOMEN, U.S. CITIZENS	1	1															
FOREIGN NATIONALS - ALL CURRICULA	1	1															
FLORIDA																	
UNIVERSITY OF FLORIDA																	
WOMEN, U.S. CITIZENS	2	3															
BLACKS, U.S. CITIZENS																	
FOREIGN NATIONALS - ALL CURRICULA																	
GEORGIA																	
EMORY UNIVERSITY																	
WOMEN, U.S. CITIZENS	1	1															
FOREIGN NATIONALS - ALL CURRICULA	1	1															
GEORGIA INSTITUTE OF TECHNOLOGY																	
BLACKS, U.S. CITIZENS	2	2															
FOREIGN NATIONALS - ALL CURRICULA																	
ILLINOIS																	
NORTHEASTERN UNIVERSITY																	
CITIZENAL, U.S. CITIZENS	0	0															
WOMEN, U.S. CITIZENS	0	0															
UNIVERSITY OF ILLINOIS AT URBANA																	
CITIZENAL, U.S. CITIZENS	0	0															
BLACKS, U.S. CITIZENS	0	0															
FOREIGN NATIONALS - ALL CURRICULA																	

# MINORITIES, WOMEN AND FOREIGN NATIONALS ENROLLMENTS AND DEGREES BY SCHOOLS RADIACTION PROTECTION

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MINORITIES, WOMEN  
AND  
FOREIGN NATIONALS  
ENROLLMENTS AND DEGREES BY SCHOOLS  
RADIATION PROTECTION

STATE - INSTITUTION	ENROLLMENT FALL 1973						DEGREES GRANTED					
	JUNIOR		SENIOR		MASTER		DOCTORATE		JULY 1972 - JUNE 1973		PHD	
FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	MASTER	PHD	
MICHIGAN										0		
UNIVERSITY OF MICHIGAN										0		
SPANISH SPEAKING U.S. CITIZENS										0		
FOREIGN NATIONALS - ALL CURRICULA										0		
MINNESOTA										0		
UNIVERSITY OF MINNESOTA										0		
SPANISH SPEAKING U.S. CITIZENS										0		
FOREIGN NATIONALS - ALL CURRICULA										0		
WOMEN, U.S. CITIZENS										0		
WOMEN, U.S. CITIZENS										0		
NEW JERSEY										0		
RUTGERS UNIVERSITY										0		
WOMEN, U.S. CITIZENS										0		
FOREIGN NATIONALS - ALL CURRICULA										0		
WOMEN, U.S. CITIZENS										0		
MANHATTAN COLLEGE										0		
SPANISH SPEAKING U.S. CITIZENS										0		
BLACKS, U.S. CITIZENS										0		
WOMEN, U.S. CITIZENS										0		
N.Y.U. MEDICAL CENTER										0		
WOMEN, U.S. CITIZENS										0		
FOREIGN NATIONALS - ALL CURRICULA										0		
SLOANE-KETTERING DIV - CORNELL UNIVERSITY										0		
WOMEN, U.S. CITIZENS										0		
UNIVERSITY OF ROCHESTER										0		
SPANISH SPEAKING U.S. CITIZENS										0		
WOMEN, U.S. CITIZENS										0		
FOREIGN NATIONALS - ALL CURRICULA										0		
NORTH CAROLINA										0		
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL										0		
BLACKS, U.S. CITIZENS										0		
FOREIGN NATIONALS - ALL CURRICULA										0		
WOMEN, U.S. CITIZENS										0		
OKLAHOMA										0		
UNIVERSITY OF OKLAHOMA										0		
WOMEN, U.S. CITIZENS										0		

**MINORITIES, WOMEN  
AND  
FOREIGN NATIONALS  
ENROLLMENTS AND DEGREES BY SCHOOLS  
RADIATION PROTECTION**

STATE - INSTITUTION	ENROLLMENT FALL 1973						DEGREES GRANTED					
	JUNIOR		SENIOR		MASTER		DOCTORATE		JULY 1972 - JUNE 1973		PHD	
FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	MASTER	PHD	
PENNSYLVANIA												
DUQUESNE UNIVERSITY WOMEN, U.S. CITIZENS												
TEMPLE UNIVERSITY WOMEN, U.S. CITIZENS												
FOREIGN NATIONALS - ALL CURRICULA												
UNIVERSITY OF PENNSYLVANIA WOMEN, U.S. CITIZENS												
UNIVERSITY OF PITTSBURGH WOMEN, U.S. CITIZENS												
2												
PUERTO RICO												
UNIVERSITY OF PUERTO RICO, RIO PIEDRAS SPANISH SPEAKING U.S. CITIZENS												
BLACKS, U.S. CITIZENS												
FOREIGN NATIONALS - ALL CURRICULA												
2												
1												
TENNESSEE												
UNIVERSITY OF TENNESSEE, KNOXVILLE WOMEN, U.S. CITIZENS												
FOREIGN NATIONALS - ALL CURRICULA												
VANDERBILT UNIVERSITY BLACKS, U.S. CITIZENS												
FOREIGN NATIONALS - ALL CURRICULA												
5												
1												
TEXAS												
TEXAS A & M UNIVERSITY WOMEN, U.S. CITIZENS												
FOREIGN NATIONALS - ALL CURRICULA												
1												
WASHINGTON												
UNIVERSITY OF WASHINGTON ORIENTAL, U.S. CITIZENS												
FOREIGN NATIONALS - ALL CURRICULA												
3												
1												

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APPENDIX 4  
ENROLLMENTS AND DEGREES BY SUBFIELDS  
RADIATION PROTECTION

DEGREES GRANTED  
JULY 1972 - JUNE 1973

ENROLLMENTS FALL 1973

CURRICULUM OR OPTION	JUNIOR YEAR	SENIOR YEAR	MASTER	DOCTORATE	DEGREES BACH	DEGREES MASTER	DEGREES PHD
HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION	47	43	206	105	16	106	27
RADIobiology OR Biophysics	16	32	20	170	27	13	27
MEDICAL RADIATION PHYSICS OR RADIOLOGICAL PHYSICS	6	2	49	51	0	19	6
ENGINEERING OR BASIC SCIENCES, HEALTH PHYSICS OPTION	3	4	7	1	3	5	2
NUCLEAR MEDICINE BASIC SCIENCES	3	0	0	0	0	0	0
ENVIRONMENTAL HEALTH	15	3	4	12	5	4	6
RADIOLogy ADMINISTRATION	11	4	6	0	0	0	0
RADIATION CHEMISTRY	0	0	0	1	0	1	0
ENVIRONMENTAL RADIACTIVITY	0	0	0	1	0	1	0
AEROSOL PHYSICS	0	0	0	0	5	0	1
RADIOLOGICAL SCIENCE	0	1	1	11	0	0	0
RADIATION BIOPHYSICS	2	1	2	1	2	0	0
RADIOPHARMACY	7	5	1	1	8	0	0
VETERINARY RADIOLOGY	0	0	1	1	0	0	0
NUCLEAR PHYSICS	0	0	0	1	0	0	1
GRAND TOTAL	110	95	307	351	61	154	71

APPENDIX 5

CURRICULUM OF OPTION BY INSTITUTION  
INSTITUTION  
HEALTH PHYSICS, RADIATION HEALTH OR RADIATION PROTECTION  
FALL 1973

COLLEGE STATE UNIVERSITY  
DUQUESNE UNIVERSITY  
EMORY UNIVERSITY  
GEORGIA INSTITUTE OF TECHNOLOGY  
HARVARD UNIVERSITY  
LOWELL TECHNOLOGICAL INSTITUTE  
MANHATTAN COLLEGE  
N.Y.U. MEDICAL CENTER  
NORTH CAROLINA STATE UNIVERSITY AT RALEIGH  
NORTHWESTERN UNIVERSITY  
PURDUE UNIVERSITY  
PENNSYLVANIA POLYTECHNIC INSTITUTE  
RUTGERS UNIVERSITY  
TEMPLE UNIVERSITY  
TEXAS A & M UNIVERSITY  
UNIVERSITY OF ALABAMA IN BIRMINGHAM  
UNIVERSITY OF CALIFORNIA, BERKELEY  
UNIVERSITY OF FLORIDA  
UNIVERSITY OF KANSAS  
UNIVERSITY OF KENTUCKY  
UNIVERSITY OF MIAMI  
UNIVERSITY OF MICHIGAN  
UNIVERSITY OF MINNESOTA  
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
UNIVERSITY OF OKLAHOMA  
UNIVERSITY OF PITTSBURGH  
UNIVERSITY OF PUERTO RICO, RIO PIEDRAS  
UNIVERSITY OF TENNESSEE, KNOXVILLE  
UNIVERSITY OF WASHINGTON  
VANDERBILT UNIVERSITY

RADIOBIOLOGY OR BIOPHYSICS

COLORADO STATE UNIVERSITY  
GEORGIA INSTITUTE OF TECHNOLOGY  
HARVARD UNIVERSITY  
JOHNS HOPKINS UNIVERSITY  
PURDUE UNIVERSITY  
RUTGERS UNIVERSITY  
SLCANE-KETTERING DIV - CORNELL UNIVERSITY  
TEXAS A & M UNIVERSITY  
UNIVERSITY OF ALABAMA IN BIRMINGHAM  
UNIVERSITY OF CALIFORNIA, BERKELEY  
UNIVERSITY OF ILLINOIS AT URBANA  
UNIVERSITY OF IOWA  
UNIVERSITY OF KANSAS  
UNIVERSITY OF ROCHESTER  
UNIVERSITY OF WASHINGTON

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TABLE IV  
CURRICULUM OR OPTION  
CURRICULUM OR OPTION  
FALL 1973

## INSTITUTION

## MEDICAL RADIATION PHYSICS OR RADIOPHYSICS

HARVARD UNIVERSITY  
JOHNS HOPKINS UNIVERSITY  
MANHATTAN COLLEGE  
PURDUE UNIVERSITY  
SLOANE-KETTERING DIV - CORNELL UNIVERSITY  
UNIVERSITY OF CALIFORNIA, BERKELEY  
UNIVERSITY OF CINCINNATI  
UNIVERSITY OF FLORIDA  
UNIVERSITY OF KANSAS  
UNIVERSITY OF KENTUCKY  
UNIVERSITY OF PENNSYLVANIA  
UNIVERSITY OF WASHINGTON  
VANDERBILT UNIVERSITY

## ENGINEERING OR BASIC SCIENCES, HEALTH PHYSICS OPTION

COLORADO STATE UNIVERSITY  
GEORGIA INSTITUTE OF TECHNOLOGY  
NORTHEASTERN UNIVERSITY  
UNIVERSITY OF CALIFORNIA, BERKELEY  
UNIVERSITY OF FLORIDA  
UNIVERSITY OF ILLINOIS AT URBANA/  
VANDERBILT UNIVERSITY

## NUCLEAR MEDICINE BASIC SCIENCES

MANHATTAN COLLEGE

## PURDUE UNIVERSITY

## ENVIRONMENTAL HEALTH

## RADIOLOGY ADMINISTRATION

MANHATTAN COLLEGE  
UNIVERSITY OF CINCINNATI

## RADIATION CHEMISTRY

RUTGERS UNIVERSITY

TABLE IV		RADIATION PROTECTION	CURRICULUM OR OPTION BY INSTITUTION	FALL 1973
CURRICULUM OR OPTION	INSTITUTION			
ENVIRONMENTAL RADIOACTIVITY	RUTGERS UNIVERSITY			
AEROSOL PHYSICS	RUTGERS UNIVERSITY			
RADICLOGICAL SCIENCE	EMORY UNIVERSITY			
	CORNELL TECHNOLOGICAL INSTITUTE			
RADIATION BIOPHYSICS	UNIVERSITY OF KANSAS			
RADIOPHARMACY	TEMPLE UNIVERSITY			
VETERINARY RADIOLOGY	COLORADO STATE UNIVERSITY			
NUCLEAR PHYSICS	VANDERBILT UNIVERSITY			

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APPENDIX 6  
UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

NOV 2 1973

Dear Sir:

Enclosed are the forms for obtaining information on radiation protection enrollments for this fall and graduates during the past academic year. We are anxious to receive your response as quickly as possible, as the information derived from your response and those of other radiation protection faculty has proved to be useful far beyond the AEC management function for which the survey was designed. For example, the report has been used by AEC and several private firms as a recruitment tool, directing would-be employers to schools producing a particular type of radiation protection graduate.

You may note a few changes in this year's form, but the basic information will tie in with that reported previously. The breakouts for sex and minority information result from numerous requests for such information as well as to satisfy our own needs. The placement data supplied last year were of great value for making manpower projections, so we would be very grateful if your response to these questions is as complete as last year.

If there are any problems in completing the questionnaire, please place a collect call to Mrs. June S. Chewning, Acting Chief, Manpower Information Systems Branch, at 301 973-4417. We would appreciate a reply by November 12, 1973, at the latest. Thank you for treating this as a high priority request.

Sincerely,

*H. T. Herrick*  
H. T. Herrick, Director

Division of Labor Relations

Enclosures:  
As stated



UNITED STATES ATOMIC ENERGY COMMISSION  
Division of Labor Relations  
Washington, D.C. 20545

Radiation Health and Radiation Safety (Health Physics)  
Enrollment and Degree Survey

**INSTRUCTIONS FOR COMPLETING FORM AEC-617**

This survey is conducted by the Atomic Energy Commission as part of its continuing effort to assure itself and its contractors a supply of well prepared experts in the nuclear field. With this questionnaire we hope to determine, by degree level, the yearly supply and anticipated supply of those trained in health physics, radiation health or safety, radiological health, or similar programs, who would be qualified to be responsible for some major phase of a program for the evaluation and control of radiation hazards.

**PLEASE READ THE FOLLOWING INSTRUCTIONS BEFORE FILLING OUT THE QUESTIONNAIRE:**

- Instr. a. **Curriculum.** Using a separate line for each major program, report only curricula which prepare students to participate in conducting, coordinating, directing, or planning a program for the evaluation and control of radiation hazards for an installation, community, or state agency.
- Instr. b. Report only students enrolled definitely as candidates for a degree. Report co-op students\* as being enrolled full-time. If exact figures are not available, please give best estimate and indicate by "E" after the estimated number.
- Instr. c. **Pre-Doctoral Degree.** Enrollments for professional degrees beyond the bachelor's are to be included with master's degree enrollments to simplify this report. Also see Instr. d.
- Instr. d. **Doctoral Programs.** Report only enrollments specifically leading to a doctor's degree. If ultimate degree is uncertain, report as master candidates.
- Instr. e. **Women, Minorities, Foreign Students.** Requests for information about women and minorities are numerous. The number of foreign nationals is important to predicting manpower supplies. Therefore, please provide as accurate a breakout as possible. Blanks will be treated as zeros.

\* For purposes of this survey, a co-op student is defined as one who alternates sessions of schooling with sessions of employment in a position related to his academic specialty.

Radiation Protection Degree Survey Supplement

Reporting Institution \_\_\_\_\_ Date \_\_\_\_\_

Please indicate placement of degree recipients reported on AEC Form 617:

Placement or plans after graduation (Please show in paren. numbers returning to previously held positions)	Degree Recipients July 1972-June 1973		
	Bachelor	Master	Doctor
a. Further study			
b Academic employment (students employed part time should be shown in a.; also see f.)			
c. U. S. Government employment			
d. GOCO (Gov.-owned, Contractor- operated installations) employment			
e. State and Local Government employment			
f. Medical facilities (including teaching hospitals) employment			
g. Industry employment			
h. Military service			
i. Unknown			

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